

Product datasheet

Mouse FGF-21 ELISA Kit, Fluorescent ab229382

Recombinant CatchPoint SimpleStep ELISA

[1 References](#) [6 Images](#)

Overview

Product name Mouse FGF-21 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			3%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			4%

Sample type

Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

1 pg/ml

Range

1.2 pg/ml - 4800 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	94	91% - 97%
Serum	103	99% - 107%
Hep Plasma	94	88% - 104%
EDTA Plasma	100	92% - 108%
Cit plasma	101	94% - 106%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity**Reacts with:** Mouse**Does not react with:** Cow**Product overview**

FGF-21 *in vitro* CatchPoint® SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of FGF-21 protein in mouse serum, plasma, and cell culture supernatants.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click [here](#) for a list of recommended Microplate Readers.

If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at www.softmaxpro.org

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plate reader at 530/570/590 nm Excitation/Cutoff/Emission.

Rat serum and plasma samples are not compatible with this kit.

Notes

FGF-21 is a secreted protein, a member of a large FGF gene family. FGF-21 stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression but not via SLC2A4/GLUT4 expression. FGF-21 activity probably requires the presence of KLB.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Mouse FGF-21 Capture Antibody	1 x 600µl
10X Mouse FGF-21 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H2O2, 3%)	1 x 50µl
Antibody Diluent CPR	1 x 6ml

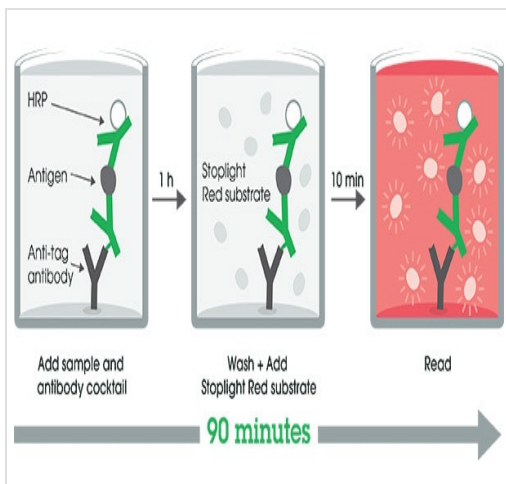
Components	1 x 96 tests
Mouse FGF-21 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	1 x 12ml

Function Stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression (but not SLC2A4/GLUT4 expression). Activity requires the presence of KLB.

Sequence similarities Belongs to the heparin-binding growth factors family.

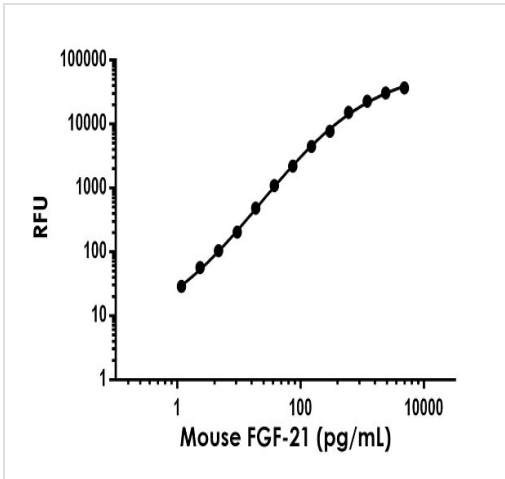
Cellular localization Secreted.

Images



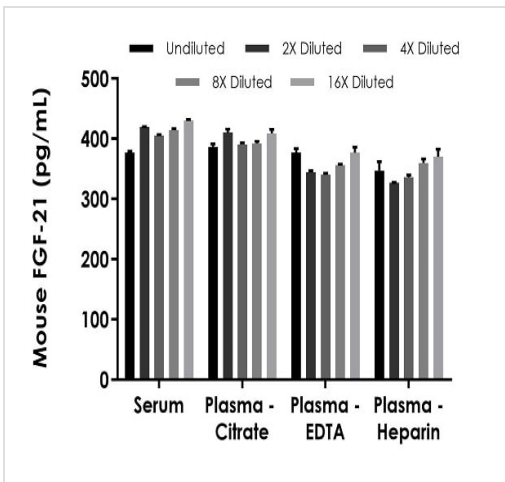
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Mouse FGF-21 ELISA Kit, Fluorescent (ab229382)



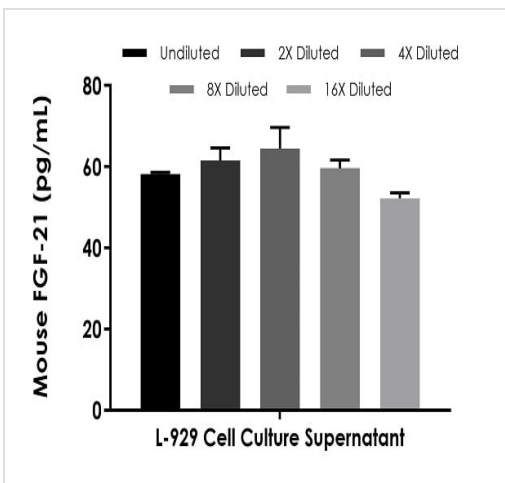
Example of mouse FGF-21 standard curve in Sample Diluent NS

Background-subtracted data values (mean +/- SD) are graphed.



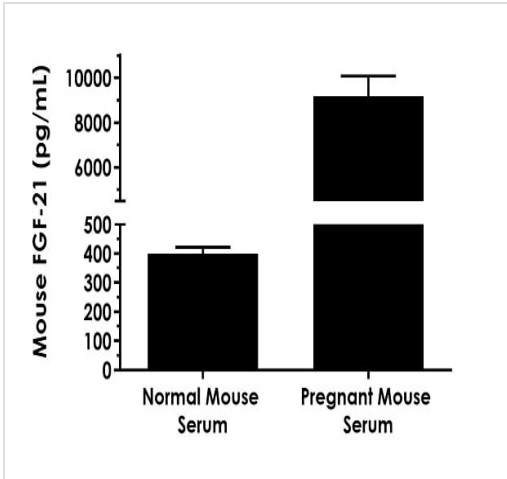
Interpolated concentrations of native FGF-21 in mouse serum and plasma samples

The concentrations of FGF-21 were measured in duplicates, interpolated from the FGF-21 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (citrate) 100%, plasma (EDTA) 100%, and plasma (heparin) 50%. The interpolated dilution factor (to neat sample) corrected values are plotted (mean +/- SD, n=2). The mean FGF-21 concentration was determined to be 409 pg/mL in neat serum, 397 pg/mL in neat plasma (citrate), 358 pg/mL in neat plasma (EDTA), and 348 pg/mL in neat plasma (heparin).



Interpolated concentrations of native FGF-21 in untreated L-929 cell culture supernatant samples

The concentrations of FGF-21 were measured in duplicates, interpolated from the FGF-21 standard curves and corrected for sample dilution. Undiluted samples are as follows: L-929 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FGF-21 concentration was determined to be 59 pg/mL in neat L-929 cell culture supernatant.



Interpolated concentrations of FGF-21 in normal female CD-1 mouse serum and pregnant female CD-1 mouse serum at day 18 of gestation

The concentrations of FGF-21 were measured in three different dilutions in duplicate and interpolated from the FGF-21 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted in pg FGF-21 per mL of neat serum (mean +/- SD, n=3). FGF-21 concentration was determined to be 401 pg/mg in normal mouse serum, and 9,193 pg/mL in pregnant mouse serum.

Powered by recombinant antibodies

<p>Research with confidence Consistent and reproducible results</p>	<p>Long-term and scalable supply Recombinant technology</p>
<p>Success from the first experiment Confirmed specificity</p>	<p>Ethical standards compliant Animal-free production</p>

Sandwich ELISA - Mouse FGF-21 ELISA Kit, Fluorescent (ab229382)

To learn more about the advantages of recombinant antibodies see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors